

# Voith Plug & Drive H<sub>2</sub> Storage System

## Complete system from one source

Our new Plug & Drive system is the new standard for the hydrogen mobility market: from tank nozzle to drive interface – all from one source.

Thanks to our modular basic components, optimized customer-specific solutions are always possible – as well as deep customer integration and co-development.

According to Voith's guiding principles for innovation projects, safety and quality prevail in every single fiber of our product solutions. Over the complete lifecycle, sustainability and circularity are ensured.

Discover the most important features and innovative advantages of our new Plug & Drive H<sub>2</sub> Storage System!

---

### Most important features and innovative advantages

- + System lifetime of 1.6 Mio km/30,000 hrs
  - + Large TowPreg H<sub>2</sub> pressure vessels (700-bar)
  - + Optimized thermodynamic system layout for fast refueling (<10 min)
  - + Holisitic sustainability concept (e.g., recycling)
-

## Our new Plug & Drive H<sub>2</sub> Storage System at a glance



1 H<sub>2</sub> Core Module    2 Large side tank    3 Small side tank

### H<sub>2</sub> Core Module including:

- Four 700-bar type IV pressure tanks made with own TowPreg winding technology
- Complete H<sub>2</sub> peripherie (valves, pressure regulator, receptacles, filters, pipes)
- Tank Control Unit (TCU) including software, sensors (pressure, temperature, H<sub>2</sub>), cables, “state of health” function
- Mechanical structure including mounting system for tanks in rack/on chassis and rack to chassis

### Modular system design

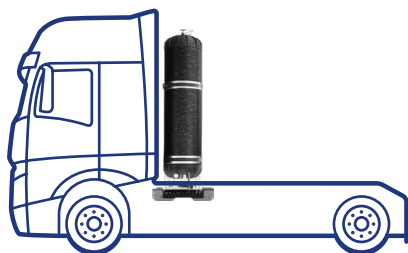
- Additional side tanks for extended capacity/range:
  - Optional: large side tank (14,2 kg H<sub>2</sub>) including On Tank Valve (OTV), end-plug and pipes
  - Optional: small side tank (5.7 kg H<sub>2</sub>) including On Tank Valve (OTV), end-plug and pipes

### Key facts

Attribute	H <sub>2</sub> Core	H <sub>2</sub> Tank
H <sub>2</sub> capacity <sup>1</sup>	56,8 kg	14,2 kg
Pressure level	700 bar	700 bar
Certification	ADR, HGV-2 <sup>2</sup>	R134 <sup>1</sup> , HGV-2 <sup>2</sup>
Fueling Time	10 Minutes	

<sup>1</sup>large tank, <sup>2</sup>planned

## Different variants for flexible user needs



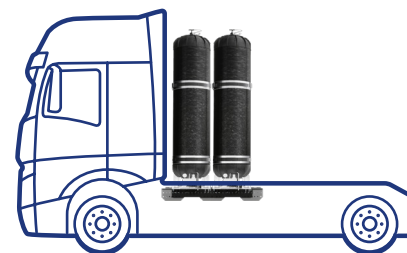
### Variant: H<sub>2</sub> Core Module

H<sub>2</sub> capacity 56,8 kg



### Variant: H<sub>2</sub> Core Module + two side tanks<sup>1</sup>

H<sub>2</sub> capacity 76,7 kg



### Variant: H<sub>2</sub> Double Core Module

H<sub>2</sub> capacity 113,6 kg

Voith HySTech GmbH  
Daimlerstr. 27  
85748 Garching (at Munich)  
Germany

Contact:  
Patrick Seidel  
Product Owner H<sub>2</sub> Storage Systems  
Phone +49 7321 37 4105  
Patrick.Seidel@voith.com

<https://voith.com/corp-en/drives-transmissions/drive-h2.html>



# VOITH